

January 28, 1999

Hon. Richard Carey, Senate Chair
Hon. Thomas Davidson, House Chair
Joint Standing Committee on Utilities and Energy
115 State House Station
Augusta, ME 04333-0115

Dear Senator Carey and Representative Davidson:

Enclosed please find a report to the Joint Standing Committee on Utilities and Energy as required by 35-A M.R.S.A. § 7104-A(4). This report describes the Public Utilities Commission's progress in implementing the state policy "that affordable access to those information services that require a computer and rely on the use of the telecommunications network should be made available to all communities of the State without regard to geographic location."

If we can provide further information or answer any questions about this report, please contact the Commission.

Sincerely,

Thomas L. Welch
Chairman

William M. Nugent
Commissioner

Stephen L. Diamond
Commissioner

JBS/sar
Enclosure

cc: Members of the Joint Standing Committee on Utilities and Energy

Report to
the Joint Standing Committee
on Utilities and Energy
Pursuant to
35-A M.R.S.A. § 7104-A(4)

February 1, 1999

Submitted by:
Public Utilities Commission

I. INTRODUCTION

In April 1996, the Maine Legislature enacted L.D. 828, An Act to Provide Affordable Access to Information Services in All Communities of the State Through Enhanced Library and School Telecommunications. In the Act, the Legislature established a new telecommunications policy:

The Legislature further declares and finds that computer-based information services and information networks are important economic and educational resources that should be available to all Maine citizens at affordable rates. It is the policy of the State that affordable access to those information services that require a computer and rely on the use of the telecommunications network should be made available to all communities of the State without regard to geographic location.

35-A M.R.S.A. § 7101(4).

This Report describes the progress of the Public Utilities Commission (PUC) in implementing this policy. The Act specifically authorizes the Commission to provide access to advanced telecommunications services to Maine's citizens through libraries and schools. We are pleased to report that 94% of all eligible schools and libraries in Maine are connected to the internet. This includes 100% of all public schools. The Legislature specified that the Commission would report to the joint standing committee having jurisdiction over utility matters beginning February 1, 1997 (and annually thereafter) in seven areas. 35-A M.R.S.A. § 7104-A(4). We report on those seven areas, with particular emphasis on new activity occurring during 1998.

II. SEVEN REPORTING AREAS

1. Progress Made in Meeting the Goal of Providing Affordable Access to Advanced Information Services in All Communities of the State Without Regard to Geographic Location as Established in 35-A M.R.S.A. § 7101(4)

A. PUC Activities 1996-1997

The Commission implemented the Act's goal by establishing the Maine School and Library Network. In January 1996, the Commission approved a plan for Bell Atlantic,¹ in cooperation with the 23 independent telephone companies operating in the State, to connect Maine's schools and libraries to the internet.

Under the plan, every public school, state-approved private school and public library was eligible for a free 56 kbps frame relay service access connection,

¹During 1997, NYNEX merged with Bell Atlantic and will be referred to as Bell Atlantic in this Report.

training, and a computer, if the school or library had no computer capable of operating on the Network. This free access is available until June 2000. A school or library desiring a different technology with at least the same or greater features than the 56 kbps frame relay service connection could opt to receive funding equivalent to NYNEX's out-of-pocket cost of providing the frame relay service, to be put toward the cost of the alternative. As of December 31, 1998, 1148 of 1210 eligible schools and libraries had filed applications and 1138 were connected to the Network. Of those connected, 118 have received funding for an alternative service, with the majority purchasing access through a cable television provider. Virtually all connections were complete by June 1997.

A board with representatives of the PUC, Public Advocate, Bell Atlantic, independent telephone companies, internet service providers, Department of Education, State Librarian and cable companies meets regularly and oversees the implementation of the Network. The Board makes recommendations to the Commission for its approval of all major aspects of the Network.

B. PUC Activities - 1998

In April 1998, the School and Library Network Advisory Board submitted to the Commission the results of a survey administered to all participating schools and libraries in November 1997. The Executive Summary is attached to this report as Attachment 1. Among the highlights, the survey found that 76% of the responding libraries and 54% of the responding schools had no internet connection prior to the start of the MSLN Project. 97.8% of schools reported that the MSLN connection was an important enhancement to their curriculum. 68% of the libraries experienced an increase in library patrons since obtaining their MSLN connection. Bell Atlantic followed up with phone calls to any respondents who reported problems with their connection. Responses related to network sizing and training were useful to the Commission in defining improvements, as described in the following paragraph.

As noted above, the original goal of the program (to connect all Maine Schools and Libraries to the internet) was accomplished by June 1997. The projected cost of maintaining those connections through June 2000 was \$9.5 million. The Commission's May 1995 Order establishing the program directed Bell Atlantic to reserve \$20 million (\$4 million/year for 5 years) of ratepayer funds for the program. In the Spring of 1998 the Commission sought comments from interested persons on how to treat the remaining \$10.5 million. Based on the comments received, the Commission decided that certain additional activities should be undertaken to ensure that sites were fully able to use their internet connections. Some commented about slow speeds, other noted the need for additional training. In response, the Commission directed the creation of a "Circuit Rider" service where experts would visit individual schools and libraries to diagnose problems related to slow speeds, software problems, and other technical problems.

The Commission also directed the School and Library Network Advisory Board to establish criteria so that sites that are making maximum use of their 56 kbps connection could qualify for a higher speed connection. The Commission approved the Board's proposal in December 1998. Approximately 270 sites appear to be eligible for a T-1 upgrade. In late December 1998, letters were sent to all schools and libraries informing them about both the Circuit Rider program and speed upgrades. It is expected that all sites choosing an upgrade will have a T-1 installed by September 1999. As in the original program, eligible sites may opt to receive funding equivalent to the out-of-pocket cost of providing a T-1 to be put towards an alternative, such as A.T.M. The Circuit Rider service began in January 1999.

C. Federal E-Rate Discounts

The Department of Education and Maine State Library are coordinating an effort to ensure that all eligible schools and libraries are aware of the discounts available for telecommunications services through the Universal Service provisions of the Federal Telecommunications Act. Beginning January 30, 1998, schools and libraries nationally could apply for discounts of between 20%-90% for telecommunication services. As of December 31, 1998, 53 Maine applications were certified as eligible to receive discounts for certain telephone services. Discounts for the period January 1998 through June 1999 totalled \$681,982. A new application window is currently open for discounts covering the period July 1999 through June 2000.

2. The Extent to Which Affordable Access to Advanced Information Services Has Been Made Available Through Libraries and Schools

Free access is available to all Maine schools and libraries through the Maine School and Library Network.

3. The Progress Made in Reaching Benchmarks Established by the Commission for the Purpose of Measuring the Successes or Shortcomings of Any Measures Required by the Commission, Including Number of Schools and Libraries Benefiting from the Measures, Geographic Distribution and Number of Hours of Use

On July 9, 1996, the Commission established nine benchmarks for measuring the success of the Maine School and Library Network. Described below are each of the benchmarks and the progress through December 31, 1998 toward reaching the benchmark. The Commission will likely establish new benchmarks in early 1999 reflecting the recent changes made to the Project.

<u>Benchmark 1</u>	All eligible public schools requesting connection will be connected to the School and Library Network by June 1, 1997.
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This goal was met in 1997. A few new schools were connected in 1998. As of December 31, 1998, 720 or 99% of 725 eligible public schools have applied for connection or AEV funding. Of those that have applied, 711 or 99% have been connected or received AEV funding as of December 31, 1998. The five that have not applied already had an internet connection and chose not to participate. The nine that have applied but are not connected requested AEV applications, but have yet to file their applications requesting an alternative. All also indicated they already had an internet connection. Therefore, 100% of all currently open public schools in Maine are connected to the internet.

In addition, by order issued on March 4, 1997, the Commission allowed alternative school programs in buildings separate from already eligible schools to participate in the project. As of December 31, 1998, 34 of 34 or 100% of eligible alternative schools that have applied have been connected.

Benchmark II All eligible state-approved private schools desiring connection will be connected to the School and Library Network by June 1, 1997.

As of December 31, 1998, 87 or 76% of 113 eligible private schools have applied for connection or AEV. Of those that have applied, 87 or 100% have been connected or received AEV funding as of December 31, 1998.

Benchmark III All eligible libraries desiring connection will be connected to the School and Library Network by June 1, 1997.

As of December 31, 1998, 307 or 92% of 335 eligible libraries have applied for connection or AEV. Of those that applied for connection, 306 or 99% have been connected or received AEV funding as of December 31, 1998.

Benchmark IV Schools and libraries in all regions of the State will be connected to the Network.

With nearly 100% of all schools and libraries connected, this benchmark has been met.

Benchmark V Each connected school or library will use its connection at least five hours per week.

The results of a survey of connected schools and libraries conducted in October 1997, and usage records at the MSLN in Orono, indicate that almost every school and library is exceeding this usage.

Benchmark VI Two representatives from each school or library requesting connection will receive basic end user training and one representative will receive technical coordinator training by June 1, 1997.

Every school and library was asked to send two representatives to basic-end user training. Sessions were held throughout the State between September 1996 and June 1997. The training was managed by the Maine Science and Technology Foundation which subcontracted with the University of Southern Maine, University of Maine, and Northern Maine Technical College. A separate technical coordinator training was offered by Computing and Data Processing Services of the University of Maine System. In total, 1720 representatives of schools and libraries received basic end user training. Of the 950 sites that received basic end user training, 770 sent two people and 180 sent one person.

On August 20, 1997 the Commission authorized spending up to an additional \$260,000 to supplement the first year's end-user training for schools and libraries. The Advisory Board developed a plan based on input from the sites and other interested parties that provided centrally located training workshops, customized site specific training workshops, facilitated discussion groups, and some on-site consulting. Based on that plan, representatives of MSLN sites received the following services from Fall 1997 - 1998:

	<u>Number of Sessions</u>	<u>Number of Attendees</u>
Basic Client Workshops	101	896
Site Specific Sessions	69	913
Discussion Seminars	31	218
Consulting Support	<u>N/A</u>	<u>171</u>
TOTAL	201	2198

Additional training was also offered for technical coordinators to supplement their basic client training. An additional 130 participants representing 245 schools and libraries attended sessions in Basic Client, Preparation and Planning for Servers, and File Server Installation. 67 Technical Coordinators representing 118 MSLN sites attended the Basic Client Installation and Support session.

The same three contractors (USM, UMO, NMTC) will be providing Circuit Rider Services in 1999.

Benchmark VII Schools and libraries opting to receive an alternative service to NYNEX's standard 56 kbps will be provided funding equivalent to NYNEX's actual, site-specific cost to provide the standard 56 kbps connection.

As of December 31, 1998, 118 schools and libraries had received AEV funding. The typical award was a one-time payment of \$1,939. Most of the AEV approved sites have used a connection from a local cable company. The remaining ones chose ISDN, T-1 or larger connections through their local telephone provider, including Saco River Telephone, Standish Telephone, and Bell Atlantic.

Benchmark VIII Each school or library requesting connection will have at least one computer capable of operating on the Network.

As of December 31, 1998, 156 libraries qualified for \$2000 grants to purchase new computers and 31 qualified for \$600 grants to upgrade computers.

As of December 31, 1998, 77 schools qualified for \$2000 grants to purchase new computers and 61 qualified for \$600 upgrade grants.

This commits \$521,200 of \$600,000 designated for new computers and computer upgrades.

Benchmark IX All schools and libraries not requesting connection to the Network or AEV will be individually contacted to verify their decision.

70 schools and libraries had not filed applications as of December 31, 1998. All of these sites received at least 2 letters and 2 follow-up phone calls. Of these, 21 schools and libraries are definitely not interested in connecting to the Network. Reasons include: library is too small; limited staffing; and open limited hours. One private school had security concerns.

4. Use of Funds Expended in the Previous Year Pursuant to Subsection 1, the Source of Those Funds and Planned Expenditures for Next Year

The Commission's Order of May 15, 1995 directed Bell Atlantic to spend up to \$4 million per year for five years (or up to \$20 million in total) to improve

telecommunications services for Maine's libraries and schools. As of January 15, 1999, Bell Atlantic had spent \$6,720,997. Bell Atlantic expects to spend an additional \$5,415,575 through June 2000 for the Network as currently designed, including the recent increased bandwidth and Circuit Rider service.

5. Whether Toll Barriers and Designation of Calling Areas Are Impeding the Achievement of the Goal of the Act

We interpret toll barriers to mean the difficulty some schools and libraries have with the cost of in-state long-distance calling. We interpret "designation of calling areas" to mean the expense of long distance calling for schools and libraries located in towns with a small local calling area. With regard to the goal of the Act, internet access could be limited for some schools or libraries if the internet service access is only available through a toll call. The School and Library Network eliminates this problem by allowing free internet access via a 56 kbps frame relay access device or high speed T-1 connections. There are no separate telephone charges for this service. Schools and libraries may, at their option, choose a modem connection and 22 hours of free long-distance calling, including internet access, each month. Five libraries and one school have chosen this option.

6. The Extent to Which the Goal Is Promoted or Impeded by the Federal Telecommunications Act of 1996, Increased Telephone Competition and Cable Television Deregulation

A. Federal Telecommunications Act

On February 1, 1996, Congress passed the Telecommunications Act of 1996 (TelAct). The TelAct is a comprehensive overhaul of the Communications Act of 1934 and establishes new rules for nearly all sectors of the communications industry, including local and long-distance telephone services, cable television, and broadcasting and equipment manufacturing. The TelAct requires the Federal Communications Commission (FCC) and the states to ensure that the goals of affordable service and access to advanced telecommunications services are met by means that enhance, rather than distort, competition.

The TelAct specifies that elementary and secondary schools and classrooms, health care providers, and libraries should have access to advanced telecommunications services. The FCC's implementation of these requirements should complement Maine's goal of providing access to advanced telecommunications through libraries and schools. The FCC has adopted policies that allow eligible schools and libraries to purchase, at a discount, telecommunications services, internal connections among classrooms, and access to the internet. Economically disadvantaged schools and libraries and those entities located in high cost areas will receive higher discounts. Discounts range from 20% to 90%. Total expenditures nationwide for schools and libraries is capped at \$1.3 billion per year. All providers of telecommunications services

will be required to contribute to support the universal service mechanisms for schools and libraries.

In November 1998, the School and Libraries Corporation, designated by the FCC to operate the program, began notifying schools and libraries about their eligibility for discounts for the January 1998 - June 1999 time period. A new application period is currently open for the July 1999 - June 2000 time period. As described above in Section II (1)(C), Maine's schools received discounts totalling \$681,982 for the January 1998 - June 1999 time period.

In the Spring of 1998, the Legislature authorized the Commission to establish a state universal service fund to ensure that similar telecommunication services are available to consumers statewide and at reasonably comparable rates. 35-A M.R.S.A. § 7104(2). Any state fund is to be consistent with the Federal TelAct and designed to ensure maximum federal assistance. The Commission opened an Inquiry in October 1998 (Docket No. 98-807) to begin the process of assessing the needs of Maine's consumers and to determine the level of support required to meet those needs. As part of this process, the Commission will determine the need for an Education Access Fund as allowed by 35-A M.R.S.A. § 7104-A. The Commission anticipates opening a separate inquiry for this purpose in late 1999.

B. Increased Local Telephone Competition

Since the passage of the TelAct, the Commission has granted authority to 15 companies to operate as competitors to existing local carriers in Maine. Several competitive companies began offering local service in 1998.

Local telephone competition may advance the goal of providing affordable access to computer-based information services and information networks in at least four ways:

1. Competition may reduce the cost of local service and local network functions, thereby improving the amount and grade of service available to schools, libraries, and information service providers;
2. Competitive local companies may offer different or wider local calling areas which can help overcome the barriers to access to information services in those areas where toll charges have to be paid to access some information networks or internet providers;
3. Competitive local companies may also be information service providers. This common ownership could result in the bundling of local service with information services whereby local customers will obtain computer-based information services at little or no additional cost; and

4. Competition may also cause incumbent local companies to become information service providers. Several incumbent local exchange carriers have already begun offering internet service.

C. Cable Television Deregulation

The TelAct repeals many of the rules governing cable television systems that were established under the 1992 Cable Act. Cable deregulation will create incentives for cable companies to increase investment and network upgrades or upgrades to cable company networks. These upgrades will allow the cable companies to become information service providers or information gateways. Cable companies may also choose to bundle information service with cable television service which will make information services more available generally.

Cable companies are participating in the School and Library Network by providing internet access at up to 10 mbps (i.e., 10,000 kbps) speeds using cable modems for some schools and libraries choosing the AEV option. 73 schools and libraries have chosen this option.

7. Recommendations for Legislation

At this time, the Commission recommends no new legislation related to providing access to advanced telecommunications services through libraries and schools.

III. COMMENTS RECEIVED RELATED TO THIS REPORT

The Act requires the Commission, in preparing this report, to consult with the State Planning Office (SPO), the Public Advocate (OPA), the Department of Administrative and Financial Services, the Department of Education, the Maine Library Commission, representatives of low-income citizens, representatives of the business community and providers of telecommunications services. The Commission must also provide copies to the OPA, SPO and "the public" for their comments. Finally, the report must be provided to the Public Advocate and State Planning Office sufficiently in advance of submitting the final report to allow their written comments to be included as attachments to the Commission's final report. 35-A M.R.S.A. § 7104-A(4). The Commission sent copies of the draft report to representatives of these parties on January 19, 1999. The draft report was also posted on the PUC web site where comments from the public were solicited. The Commission received no comments on the draft report.